United States Government

M E M O R A N D U M **U.S. Fish and Wildlife Service**

To: Assistant Regional Director (RW): ATTN: RFS

From: Refuge Manager, Back Bay NWR, VA

Subject: BACK BAY NWR PHRAGMITES CONTROL PROGRAM RESULTS - 1993

Date: January 13, 1994

The phragmites control effort of 1993 was initiated as part of a cooperative program with the state of Virginia's Division of Natural Heritage, called the "Southern Watershed Common Reedgrass Control Project". They agreed to treat approximately 100 acres of Refuge property with dense Phragmites concentrations. These treatment areas consist of sites in Tracts 126 (829 Sandbridge Road), 104 (Rigg's Tract), and in A and B pools on the Refuge. In late August, Ken Clark of the Division of Natural Heritage and the Refuge finalized the sites to be treated. On September 7, two line transects were established; one through a treatment site and the other through an untreated (control) site.

The plan to apply Rodeo on the designated sites by mid-September was delayed for a combination of reasons: the helicopter contractor hired by the State fell behind schedule due to inclement weather (the near-approach of Hurricane Emily), localized uncooperative winds, and equipment problems. By the time the aerial Rodeo applications occurred during October 2 and 16, senescence was occurring in the targeted Phragmites stands.

On November 16, a post-spray assessment by Refuge staff was conducted. The results were as follows:

1. **Tract 104b:** Comparing the five treated sites to the control site, provided an estimated Phragmites kill of between 85 and 90%.

2. **A pool:** A kill of 75% was achieved in the two acres treated.

3. **B pool:** One-quarter acre was treated by backpack sprayer only. A kill of 80% was achieved. A strip along the canal adjacent to the site was avoided, together with erosion-control vegetation on the nearby dike slope.

4. **829 Sandbridge Road.** This two to three acre parcel was not treated. It will receive priority next fall

Herbicide application data included in the table below was derived from the "Southern Watershed Common Reedgrass Project Progress Report".

TABLE 1 - AERIAL HERBICIDE APPLICATION

UNIT	DATE TREATED	MANAGED AREA	SIZE	AMOUNT RODEO	AMOUNT TL-90
1A	10/2/93	BBNWR	21	10.5	1.05
1D	10/2/93	BBNWR	4	2	0.2
1G/H	10/2/93	BBNWR	23	11.5	1.15
1I/J	10/2/93	BBNWR	12	6	0.6
1K	10/2/93	BBNWR	42	21	2.1
1L	10/16/93	BBNWR	2	1	0.1
Totals:			104	52.0	5.2

TABLE 2 - GROUND HERBICIDE APPLICATION

UNIT	TREATMENT DATE	MANAGED AREA	SIZE	RODEO	TL-90
1M	9/29/93	BBNWR	1/4	9.3	4.25

KEY TO TABLE:

SIZE: size of unit in acres
RODEO: amount of herbicide Rodeo applied to unit in gallons
TL-90: amount of surfactant TL-90 applied to unit in gallons

In conclusion, the time between site selection and spray application was longer than we preferred under optimal conditions. Trying to coordinate the efforts of the Refuge, the Virginia Department of Forestry, the Division of Natural Heritage, the Monsanto people and the contracted flyer became a problem. Future cooperative efforts should go smoother.

Should there be any questions, feel free to contact me or Biologist John Gallegos.

Anthony D. Leger